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## *The Death of Species.* By EDWARD NEWMAN.

(Continued from S. S. 1358.)

DESIRING to establish conclusions from the past and present state of human beings similar to those deduced from the world of animals, I have endeavoured to collect facts from sources the most opposite: 1st, the investigations of the scientific; 2nd, the conclusions of those who view the coloured races as scarcely human, and, repudiating all idea of a common origin, desire their extermination as they would that of noxious beasts; and 3rdly, the conclusions and arguments of those who regard the coloured man from a philanthropic point of view, and who believe that all men are descended from one pair who trod the earth 5872 years ago. I cannot but regard the first of these sources as the most reliable; the second allows too much scope for prejudice; and the third completely turns the table on the white man, and, scarcely content with accepting the black as a man and a brother, seems to look up to him with something approaching to veneration.

As an example of what the calm and quiet philosopher has to say on this subject of extinction of races, let us read Paul Broca on Human Hybridity. He says, at p. 11, of the English Edition: "It is undoubted that several American races have been destroyed within three hundred years; others, having been reduced to a few families, will soon disappear. The Charruas were exterminated in 1831 by the Spaniards of South America, root and branch. In 1835, four years later, the English of Van Diemen's Land, after a horrible massacre, transported two hundred and ten Tasmanians, men, women and children, to a small island (Flinders), in Bass's Straits. In 1842, after seven years of exile, the numbers of these unfortunates amounted to fifty-four. This was all that remained of a race which forty years previously occupied the whole of Van Diemen's Land, as large as Ireland, and we may soon learn that none of them are in existence. The Malays have entirely destroyed the black races who preceded them in certain isles of the great Indian Archipelago. The Guanches only now exist in a mummified state. The black and prognathous race which occupied the isles of Japan before the arrival of the Mongolians, have left no other traces behind than their crania imbedded in the soil; and it is easy to foresee that within one or two centuries all the black races will have disappeared from these parts and have been succeeded by Malayans and Europeans." The under-mentioned scientific works corroborate these statements:—'Natural History of

BRITISH MUSEUM

Man,' by James Cowles Prichard; 'De la Pluralité des Races,' par Georges Pouchet; 'Types of Mankind,' by Dr. Nott; 'The Races of Men,' by Dr. Robert Knox; 'La Terre et l'Homme,' par M. L. Maury; 'Observations sur la Constitution physique des Papous,' par Quoy et Gaimard; 'The Natural History of the Varieties of Man,' by Dr. Latham; and it would be impossible to cite any scientific author who has studied the subject and yet has acknowledged views antagonistic to those I am endeavouring to express; and not one of them, so far as my memory serves me, has applied them with the same ultimate object.

*Secondly.* It is the aim of every newspaper in the United States and Australia to show that the native races are in rapid process of destruction, that they must be extinguished, that they are doomed, and that the white man is as a matter of necessity carrying out their doom: to quote where every assertion, every aspiration, every conclusion, is so concurrent would add nothing to the strength of my argument: it cannot be concealed that the most violent prejudice dictates many of these most morbid effusions: our own Dickens and Hepworth Dixon seem to take a very similar view.

*Thirdly* and *lastly.* What is the evidence of the philanthropist? What says the man who cares very little for scientific precision, and who abhors the views forced into notice by the newspaper literature to which I have alluded? In the year 1836 a number of these philanthropists associated themselves in a body which they called the Aborigines' Protection Society: they took for a motto the words "Ab uno sanguine;" and their avowed object was to protect those savages whom they found in the possession of the soil, on the ground that all the races or varieties of the genus Homo were descended from one stock. They even objected to the word "savage" as applied to men, and went so far as to express a belief, that the Caucasians were emphatically the "savages," and not those to whom the word had been applied. In March, 1847, these gentlemen commenced a periodical called the 'Colonial Intelligencer; or, Aborigines' Friend,' and continued it through four volumes. Of the motives which influenced these gentlemen there can be no doubt; the purest Christianity was their guide, and "doing good was their religion." The name of Dr. Hodgkin, their honorary secretary, is of itself a guarantee. Differing as I do *in toto* from the abstract views advocated by this Society, but thoroughly agreeing with their motives, I may with perfect consistency cite their assertions, which have never been called in question. I will therefore extract with full unity the following passage from their introduction, or as they call it, "prologue."

"The navigator has shown his humanity by giving the pig and the potato as lasting resources for the supply of food; the missionary has laboured to substitute the blessings of Christianity for the impure and homicidal rites of paganism; but with comparatively few exceptions of this kind, the intercourse of civilized man with the aborigines has been a visitation of unmitigated evil, varying in its kind but uniform in its tendency towards the annihilation of the feebler race. A century or two were spent by the Portuguese in the extermination of the Guanches, the aborigines of Teneriffe and Fuerteventura. After a similar period of English occupation in Newfoundland the last of the original race had ceased to exist in the island. In the nineteenth century the work of aboriginal destruction, like many other processes of civilized art, has been wonderfully expedited; and about thirty years have sufficed to blot out the existence of the once numerous aboriginal race from the fertile soil of Tasmania. In various parts of the globe the assassination of races is perpetrated, and the fact causes far less emotion than is often exhibited when a minor catastrophe has befallen an individual."—p. 3.

It is inferred in the opening of this passage that the attempted introduction of Christianity was a counteracting or beneficial influence; let it be so; but it is nevertheless easy to show that this influence has not always been exerted in the same direction. No sooner has a tract of country become a colony of Britain than the original inhabitant has been deprived of all his possessions, and was either exterminated or driven back into the primæval forest; but let me glance at the three races especially noticed by the Aborigines Protection Society—races of which not an individual remains; *all*—men, women and children—have been slaughtered by the Caucasian: I shall be guilty of some repetition, but that is inevitable.

1. The GUANCHES. These people have so utterly disappeared and have been so entirely forgotten that one has to search diligently through the records of the past for evidence that they ever existed. They inhabited several islands of the Atlantic, more particularly Fuerteventura and Teneriffe. They were totally destroyed by the Portuguese, and the only trace of their having existed is to be found in certain mummified bodies of older date than the discovery of these islands by Europeans.

2. The NEWFOUNDLANDER, the species or race destroyed in 1823. "On our first visit to that country the natives were seen in every part of the coast. We occupied the stations where they used to hunt and fish, thus reducing them to want, while we took no trouble to indemnify them; so that doubtless many of them perished by famine: we also treated them with hostility and cruelty. * * * They must, however, have recently been very numerous, since in one place Captain Buchan found they had run up fences to the extent of thirty miles, with a variety of ramifications, for the purpose of conducting the deer down to the water, a work which would have required a multitude of hands." These people, who are represented as a remarkably fine race, were slaughtered by the English without any parley whatever. The Report of a Select Committee of the House of Commons, appointed at the instigation of the Aborigines' Protection Society, observes: "It does not appear that any measures were taken to open a communication with them before the year 1810, when, by order of Sir J. Duckworth, an attempt was made by Captain Buchan, which proved ineffectual." Thus it is shown that for a hundred and fifty years the murderous system was carried on as against unreasoning vermin of any kind, and that then the attempt at a compromise was untried. "At that time," I still quote the Report, "he (Captain Buchan) conceived that their numbers around their chief place of resort, the Great Lake, were reduced to 400 or 500. Under our treatment they continued rapidly to diminish; and it appears probable that the last of the tribe left at large, a man and a woman, were shot by two Englishmen in 1823." Fit climax.

3. The TASMANIAN was destroyed in 1860. This race, like many others, was extremely circumscribed in its limits: regarded superficially all the inhabitants of that vast assemblage of islands which occupy the Pacific are Australasian; but when brought under the cognizance of Science a number of technical differences are perceived which prove that they are entirely distinct. The Tasmanian differed in the most marked manner from his nearest neighbour, the Australian, in having a woolly head like the negro, while the Australian possessed the straight lank hair of the Malay. Tasmania was discovered in 1642, and was visited by Cook in 1777. At first it was supposed to form part of New Holland, and was called Van Diemen's Land, but this mistake was rectified by the discovery of Bass's Straits, through which our ships very early made their way. Concerning the inhabitants of Tasmania the statements made, or rather collected, by

Paul Broca, harmonize so exactly with those published by the Aborigines' Protection Society as to remove all doubts of the truthfulness of either. "The English," says Broca, "so humane and patient as regards the Australians, have committed on the Tasmanian race, and that in the nineteenth century, execrable atrocities a hundred times less excusable than the previously unrivalled crimes of which the Spaniards were guilty in the fifteenth century in the Antilles. * * * These atrocities have terminated in a regular extermination." Strzelecki, whose 'Physical Description of New South Wales and Van Diemen's Land' has always been regarded as a work of the highest authority, writes thus: "In 1835 the English of Van Diemen's Land undertook to get rid of the natives altogether. A regular battue was organized in the whole island, and in a short time all Tasmanians, without distinction of age or sex, were exterminated, with the exception of two hundred and ten individuals who were transported to a small island, Flinders or Fourneaux, in Bass's Straits. This was all the remnant of a race which before the arrival of the English had occupied a territory nearly as large as Ireland. This dreadful massacre produced a profound horror in the English Parliament, but no one suggested the propriety of sending back these unfortunates to their native soil. Measures, however, were taken to treat them humanely in the Isle of Flinders, and to provide them with abundance of food; they were also instructed in religion. The island is about thirteen leagues in length and seven in breadth; the refugees had thus no want of space. Nevertheless, these two hundred and ten individuals, most of them adults, perished rapidly, and in 1842 fifty-four only survived. During seven years and a few months only fourteen children were born." There is no question that some of the English made certain attempts to improve and civilize these poor creatures, but without beneficial result. One of these philanthropists, writing to Rienzi, also a friend and advocate of the natives, says, "Several of the children have been sent to the schools in Hobart Town, but when arrived at the age of puberty an irresistible impulse compels them to return to their solitudes." Every scrap of information that we can obtain of these poor creatures, from whatever source derived, tells the same tale; their persecutors and their defenders,—those whose object it was to exterminate and those who laboured to preserve,—all agree with the philosophic Frenchmen who were mere spectators and not performers, that the Tasmanian could not be tamed and has been exterminated.

The CARIBS. "Of the Caribs, the native inhabitants of the West Indies, we need not speak, as of them little more remains than the tradition that they once existed." In these few words the Select Committee of the House of Commons disposes of a people once as numerous as the grains of sand on the sea-shore.

Although the authorities I have consulted offer many other examples of races that have perished and not left a trace behind, these are quite sufficient to show that species, or races, or families of men, as numerous as those of the countries of modern Europe, have been exterminated by the Caucasian so completely as to have left just sufficient evidence to show that they once existed, and nothing more.

Let us now turn to peoples that are dying, and here two examples will be sufficient, because of their vastness, because of the awful reflection that in each case myriads upon myriads are being destroyed by the hand of the Anglo-Saxon.

1. The AUSTRALIAN. The Report of the Select Committee says, "The effects of planting our penal settlements among them have been dreadful beyond example, both in the diminution of their numbers and in their demoralization;" and Bishop Broughton, quoted in the same Report, says, "they do not so much retire as decay; wherever Europeans meet with them they appear to wear out and gradually to decay; they diminish in numbers; they appear actually to vanish from the face of the earth. I am led to apprehend that within a very limited period, a few years at most, those who are most in contact with Europeans will be utterly extinct—I will not say exterminated, but they will be extinct." Such is the concurrent testimony of all who are acquainted with Australia and Australian affairs, but this evidence of the Bishop, endorsed by the Select Committee and circulated by command of Parliament, is irresistible—no one will call it in question.

2. The RED INDIAN. Our earliest contact with the North-American Indian is the date of his declension. The Select Committee's Report says it seems to have been for a length of time accounted a meritorious act to kill an Indian, and Cotton Mather tells us that "it was considered a religious act to kill Indians." But the English Puritans, who it may be observed in passing were the most highly professing religionists the world has yet seen, reduced the Indo-destruction to a

systematic course of action, and expressed their views in this syllogistic form:—

1. "The earth is the Lord's and the fullness thereof.

2. "God has given the earth to be inhabited by his Saints.

3. "We are his Saints, and therefore the earth and the fullness thereof is given to us."

The Saints acted on this view of the case, and it must be said carried it out with spirit and perseverance. First, they seized corn and cattle, then the land, shooting down the owners without the slightest compunction: at last the Indians, driven to desperation, retaliated, and such scenes of rapine and murder followed, such atrocities were perpetrated, both by the natives and the Saints, as the world has never witnessed elsewhere: the white man of course came off triumphant, and from that hour to this has been pursuing the poor Indian with unrelenting assiduity, nor will he desist while a single red skin remains between the Atlantic and the Pacific. The Report of the Select Committee touches on the different tribes by name, and speaks of them as a very degraded race. The Indians of New Brunswick are "in a wretched condition." The Cree Indians, "once a powerful tribe, have now degenerated into a few families." The Copper Indians "have decreased within the last five years to one half the number of what they were." The Report dwells at considerable length, and with decided approbation, on the attempts now being made to christianize the Indians, and regards this movement as having a marked effect in diminishing the ratio of decrease.

Thus the races of men have died exactly in the same way as the species of animals; they are also still dying in the same way: the two are decreasing *pari passu.* The death of the Carib is an exactly similar case to the death of the dodo; the death of the Tasmanian corresponds exactly with the death of the moho: all these are obedient to one law, and that law is the death of species. These facts are open to any scrutiny, however rigid, but they are so generally admitted that nothing is to be apprehended from the most searching investigation.

And here, before entering on the great question of the degradation, deterioration or decay of races, it seems desirable to forestall two objections or suggestions that will certainly occur to the reader who has favoured me by attentively considering the subject. *First,* that seeing that exhaustion or depletion of Nature's ranks must result from the constant death of species, and seeing that there are no manifest signs of that depletion, it seems to follow that a series of creations must have been required to supply the deficiencies caused by death; and, *secondly*, that if such creations have supplied, from time to time, such gaps or deficiencies, that they *may* occur again, and Caucasian man may be dethroned, and a higher race be substituted in his stead as universal monarch.

I will take the second of these objections first, because the most simple. Seeing that the Almighty originally created man, whether in his present form or as a protogerm from which his present form has been evolved (every one will concede a creation of some kind), it would appear to me an act of insanity to express a doubt as to the continued existence of that creative power; and therefore the possibility of the creation of a being superior to the Caucasian must be admitted also. This, however, is nothing more than the admission of an Almighty Existence, and is totally different from expecting or prophesying such an event: so vague and crude a guess is unworthy the dignity of science, because removed so entirely from the possibility of proof.

The *second* suggestion stands on a different footing, and, having a direct bearing on the subject under consideration, is open to investigation, the rocks themselves being the court of appeal. These unequivocally reveal the fact that additional species of animals have from time to time made their appearance on the earth's surface.

The classification of rocks, which was regarded sufficient for our school-days, is also abundantly sufficient for the present inquiry. The igneous rocks contain no evidence of the existence of organized beings; but no sooner do we examine the superincumbent series, than we find traces of both animal and plant life. That the stratified rocks follow each other in point of antiquity, the lowest being the most ancient, is now universally admitted: I give their order both of position and antiquity according to De la Bêche. "1, Grauwacke, which includes the Silurian of Murchison; 2nd, the carboniferous, which includes the old red sandstone, the carboniferous limestone and the coal measures; 3rd, the red sandstone; 4th, the oolite; 5th, the chalk or cretaceous; 6th, the supra-cretaceous, divided by Sir Charles Lyell into the eocene, miocene, older pliocene and newer pliocene; and 7th, the modern." This sequence or system of supraposition has not been called in question, and, together with the author's explanatory note, is still considered sufficient and satisfactory.

Here is his explanation:—"By a given order of superposition among the fossiliferous rocks, we mean that certain masses of mineral substances, no matter what kind of mineral substances they may be, *have been produced at distinct geological periods, one after the other: and that as far as researches have yet extended in Europe, where they have been most studied, they contain as masses certain assemblages of organic remains not detected in the others; that is, if, for the sake of illustration, we suppose a series of fossiliferous rocks to rest upon one another, each would contain organic remains differing as a whole from those discovered in the others either above or below it.*" In the old red sandstone we find fishes, and as no fishes existed during the Silurian epoch, we may, I think, assume that a creation of fishes took place after the Silurian system was complete. Again, the new red sandstone contains the foot-prints of huge animals, which may have been reptiles, birds or sucklers, but which certainly were not fishes; therefore another creation must have taken place after the old red sandstone system was complete. Again, the oolite contains three extraordinary creatures, the plesiosaur, the ichthyosaur and the pterodactyle, no trace of which has been discovered in lower strata, thus implying their non-existence at an earlier period. Lastly, come the elephant, rhinoceros, tapir, hippopotamus, bear, stag, &c., &c., not found in either of the underlying formations. Now unless we admit the Silurian animals to be the progenitors of the old red sandstone animals, the red sandstone animals to be the progenitors of the oolite animals, and the oolite animals the progenitors of the still more recent elephants, &c., these various creatures must have resulted from a number of creations widely separated as to time; for it is a very noteworthy fact, and one which I think cannot be called in question, that there does not exist a tittle of evidence to show that the creatures of any supposed era are the descendants of those of a prior era; if, for instance, the plesiosaur in ten thousand generations had culminated in an elephant, or the pterodactyle in a stag (I take the names at random), there must have existed ten thousand forms intermediate between each pair of extremes. "Why then," says Mr. Darwin, "is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this perhaps is the most obvious and gravest objection that can be urged against my theory. The explanation lies, as I believe, in the extreme imperfection of the geological record."—'*Origin of Species*,' p. 280 of the original edition.

Such is Mr. Darwin's own admission, and such his explanation of the admission. Candid, courteous and transparently truthful, it seems hard thus to quote Mr. Darwin against himself, but the facts must remain that there is an entire absence of all evidence that such intermediates ever existed, and the only conclusion to which the rocks can possibly lead us is that such intermediates never did exist. It is notorious to the geologist that the elephant, the sloth, the stag, the tortoise, the shark, come before us with no feeble or uncertain form: they exhibit no gradation from what are called inferior beings; far from this, they evidently leaped into life in the zenith of their glory, in the plenitude of power, strength and bulk. Mr. Darwin asks of those naturalists (if such there be) who advocate the theory of successive creation, "Do they really believe that at innumerable periods in the earth's history certain elemental atoms have been commanded suddenly to flash into living tissues?" Certainly, there is no more difficulty in believing this than believing in the creation of an "elemental atom." "These authors seem no more startled at a miraculous act of creation than at an ordinary birth." Confessedly so; but the antithesis might have been still more striking if worded thus, "These authors seem no more startled at the miraculous creation of a mastodon than of an elemental atom." The obvious reason is they believe the Almighty equally competent to either case. The simplest form, considered as an object to be called into existence, presents no greater facility than the most complicated; all acts of creation are equally removed from the sphere of man's feeble powers, but are equally within the range of Almighty will. But, admitting the grandeur, the ineffable grandeur, of the miraculous creation of a mastodon, it is in reality far less difficult to believe, than the entire destruction of all trace of those myriads of generations which must have been required to evolve a mastodon from either of the oolite monstrosities. We are required to give up our faith in one miracle in order that we may receive a miracle infinitely more astounding: we are forbidden to strain at a gnat in order that we may swallow a camel. I fully believe in the *possibility* of the stupendous miracle of obliterating all trace of those supposed generations which have led up to the present status of organized beings; but I am utterly at a loss to conceive the *cui bono* of such a miracle. I think also the unprejudiced reader cannot fail to be struck with the importance given to magnitude by all the evolutionists to such terms as "elementary atom," "molecule," "protogerm," "monad," &c., &c., being in frequent requisition: now I regard large and small as simply matters of degree, not essential properties or characters, and therefore that they have no bearing on the question.

EDWARD NEWMAN.

(To be continued.)

## *Acclimatisation of Parrots.* By CHARLES BUXTON, Esq., M.P.*

I HAVE undertaken to tell you a little about the experiment that has been tried here of letting parrots fly wild about the place; but, though it has been a source of great interest and amusement to us, I much fear that there is very little to relate that could be thought worthy of the attention, even in their holiday moments, of an association for the advancement of science. Nor can I honestly say that the attempt to acclimatise these birds—that is to say, to establish them as an addition to our English fauna—has in that respect been attended by success. It is true that they have several times made nests, and on five of these occasions the young ones have been brought to maturity; and, "were it not for those vile guns," the birds would flourish extremely, for illness and death from natural causes would seem to be almost unknown among them. But, unhappily, they share in many of the characteristics of human nature, and in this one above all, that they do not know when they are well off, and every now and then they are seized with a desire to see the world, and take flight to a distance, twelve or fifteen miles perhaps, and sometimes much more; and then they are almost sure to fall a prey to some gamekeeper or lad who is keeping crows off, and who is astonished by seeing these brilliant apparitions among the trees. As regards their breeding, a pair of cockatoos led the way by most unsuccessfully attempting to make a nest in one of the chimneys; but before it was half finished it gave way, and the nest and cockatoos fell to the bottom. It being summer time, they were only discovered after spending a day and a night among the soot. When they were brought out they looked like two dwarf chimney-sweeps. They persevered, however, and made another nest in one of the boxes that had been hung against the gables of the house, in hopes of such an event; but though they laid two eggs, and the hen cockatoo sat most perseveringly till September, it was all in vain; the eggs were addled. Afterwards a pair of green parrots—a cock of the Amazonian and a hen of the Honduras breed—made a nest in one of the boxes, and brought up a young one; but when he was nearly fledged one of the cockatoos thought it right to murder him. The year after the same pair brought up two children, and it was really a beautiful sight to see the family party flying about, always together, and living on the most loving terms; but the mother and her eldest son both, unhappily, were shot. Afterwards one of the common white cockatoos and the hen Leadbeater (a very large rose-coloured cockatoo) dug out their own nest in the rotten branch of an acacia tree, laid two eggs and brought up the young birds. These hybrids are very handsome, but do not resemble either of the parents, having very beautiful crests of a red-orange colour; otherwise they are perfectly white. The parent birds were so pleased with the success of this experiment that last year they repeated it, and brought up three young ones, thus making up a flock of seven with the two first born. Unluckily, one of them was shot at in the winter, and came home severely wounded; after which the other birds would not permit him to associate with them, and he always lived in a bush near the house, quite apart from the rest. One day I moved him into the garden, upon which some of the other cockatoos—not, however, his own relations—fell upon him the moment my back was turned, and killed him. One of those traits of character which, as I said just now, these birds, and in fact most wild animals, share with human nature, is their general dislike of cripples. Another of them was also injured, so I took him away to Surrey, where, in spite of his broken wing and broken leg, an old cockatoo befriended him, and treated him as her own son. This year we hoped that the same pair would have nested again; but unluckily a pair of gray parrots anticipated them in the possession of the hollow branch, and, having made a nest in it, brought up the two young gray parrots that you have just seen, and which are afflicted with the most awful temper. The maternal instinct of another pair of gray parrots took a very absurd form. This year a cat made her lodging in one of the nest-boxes, and brought up her kittens in it; and two of the gray parrots, who had not been industrious enough to lay eggs and have a family of their own, were seized with the idea that these kittens were their children. They kept up a constant warfare with the old cat, and whenever she left the box one of them used to get in and sit with the kittens; and they were constantly in close attendance, even when the mother cat was at home.

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* Read at the recent Meeting of the British Association at Norwich.

When the cockatoos I have spoken of had their nest in the acacia tree it was very ridiculous to see the extravagant interest taken in the matter by the others of the same species. They used to sit most of the day on the branches, just above the nest, and whenever the parent bird flew out she was attended by a troop of the others, screaming horrible acclamations in her honour. There is an immense deal of originality about this race of birds. They have none of the commonplace, humdrum mediocrity. Their curiosity is unbounded, and they evidently look on man and his doings with the keenest interest, mingled with surprise, and perhaps with just a *soupçon* of contempt. There is, moreover, strongly marked individual character amongst them. No two of them behave in exactly the same manner. I think the large white cockatoo with the broad white crest is the most intelligent of the lot. I had one of them whom I wished to keep chained to a perch, but, though a first-rate London blacksmith tried everything his ingenuity could suggest, the cockatoo beat him utterly. Without breaking it, he contrived to open the ring, or other instrument for holding him, with his beak, though one or two of them must, one would have thought, have required real study to understand.

The experiment of acclimatising parrots has been tried on a somewhat large scale. We have had African, Amazonian and Carolina parrots; Rosella parrakeets; large Bengal parrakeets; four species of cockatoos, and two of lories. The last are magnificent birds, with their scarlet bodies, and very long wings and tail of rich metallic-green: curiously enough, however, they are far less seen than any of the others, as they almost always sit buried in the thickest foliage, and have none of the sensibility and intellectual excitement of the cockatoos or parrots. In fact, however, all these birds vanish completely out of sight during the greater part of the day. Many of them, indeed, live in the woods at a distance from the house, but even those who have selected the trees in the garden for their residence would not easily be discovered. You would have supposed that at any rate the white cockatoos would have been visible anywhere; but the inclination of all animals is to slip out of the sight of man, and, with the shadows of the trees upon them, an unpractised eye would rarely discover them. In the morning and evening they come to feed upon hemp-seed and bread and milk, which is hung in a basket from a tripod; and then, I can assure you, the groups of them are sometimes most beautiful. Lately we have had great losses—so many have flown away and been shot. But I will read a memorandum which I put down one day, a couple of years ago, of the scene I was watching, and which recurred morning after morning as I sat reading in my study at my house in Surrey:—"The parrots' breakfast having been put in the basket, a pair of white cockatoos, who had been anxiously watching the proceedings from the tree above, swooped down, and set instantly to work. A Bengal parrakeet, with long green wings, presently comes skimming up, and flutters for a few minutes almost perpendicularly in the air, exactly in the attitude so often represented by Mr. Gould in his book of the 'Humming Birds,' with the head and tail curved inwards, and the wings extended. Two or three rose-coloured cockatoos follow, and hang about on the tripod, but do not venture to take their places on the edge of the basket while their fiercer brethren are at work; but presently one of the huge white cockatoos with yellow crests comes swinging heavily down over the lawn, putting all the lesser ones to flight in a moment. But they soon gather round again, and a lory, resplendent in red and green, darts through the air, and lights on the top of the tripod, his burnished hues contrasting well with the pure white of the cockatoo below; and the group is completed by a Cornish chough, whose glossy blue-black plumage and orange beak and legs are not the least striking of their costumes: he always at once engages in a fierce strife with his rivals, and his long beak gives him the advantage over them."

I can assure you, ladies and gentlemen, that a spectacle of this sort, which I have witnessed hundreds of times, is one of exquisite beauty, especially on a sparkling winter's morning with the snow on the ground, when the colours of the birds seem peculiarly gorgeous. Nor do they appear to be injured by the cold: the gray parrots have the sense to get into a house that was built for shelter to them, but none of the others can ever be persuaded to enter it, and they live in the woods the whole year through; but even last winter, when the thermometer in my neighbourhood fell six degrees below zero, though one cockatoo unaccountably disappeared, all the rest appeared to be as full of life and spirits as possible. In fact, so long as birds are well fed and in good health, I do not believe that cold is fatal to them. Their migration depends altogether on food, and not on the fear of cold: even the delicate little longtailed titmouse, and the still more delicate little goldencrested wren, and numbers of other seemingly tender birds, remain with us the whole winter through without appearing to suffer. The fact is that birds have such a wonderful great-coat, such a dense mass of down below their feathers, and have also, if I am not mistaken, such a supply of caloric—much beyond that of animals—that cold rarely kills them; though I do not mean to say that they like it. It certainly, however, is curious that these African parrots, Bengal parrakeets, and lories from the Philippine Islands have never appeared to suffer even from our frost and snow. I may observe the gardener declares that the gray parrots foresee a storm, and often take refuge before it comes in their glass-houses.

Nothing can be more striking than the contrast between the plumage of the parrots when they first come, and its appearance after they have been flying about for a few weeks, when it acquires a gloss and glitter like that of burnished metal. Variety of food is not less essential to them than abundance, and they also require exercise. Some of them, who cannot fly, or who prefer moping at home, always look woebegone, and are gloomy and irritable; while the industrious Pollies who fly about and help to earn their own livelihood are cheerful, contented and kindly. It is curious how clearly they have the idea of property and possession. An old parrot who always sits in the ivy on an old wall is just as indignant if any other parrot seeks to share in his part of it as my cook would be if some of you insisted on taking up your residence in my kitchen. Generally, however, they pay the utmost respect to each other's prescriptive rights.

We usually have got our parrots from Mr. Jamrach, a Jew, who has a shop near Wapping, and who buys all kinds of animals from the ships that come into the docks: his shop is a queer place, and well worth a visit. One day when I was there he had in his little back yard a crocodile twelve feet long, and another, a baby crocodile, which I bought and kept alive for some time, about eighteen inches long; and sundry bears, lions, monkeys, racoons and other animals, while all the rooms in the house itself were given up to birds, mostly of the parrot kind, and the screaming and shrieking is terrific. Every now and then there is a perfect avalanche of the little green parroquets from Australia, and on one occasion Mr. Jamrach had 3000 of them in his bed-rooms. Parrots that can talk fetch a high price, so we rarely buy them, as we don't want pets; moreover, they very soon lose their power of talking when they are out in the woods; but sometimes they learn to imitate other sounds. At my house in Surrey the jackdaws build in boxes placed for them in the gables, and a gray parrot who flies about has learned to imitate them exactly; while one of the cockatoos can imitate the clucking of a hen so cleverly that no one could conceive that it was not the fowl herself. A large Amazonian parrot, who has been at Northrepps Hall for twenty years, used to be a first-rate talker: he it was who originated the plan of turning the parrots out, for, having escaped from his cage, he remained in the oaks and beech trees for nearly three months, and only came back when the winter set in, but looking so magnificent that the idea suggested itself of trying the effect of liberty on other parrots as well. After he returned he amused us very much by walking up and down on the sill of the dining-room window, repeating the phrases of anxious entreaty that had been addressed to him by the maid-servants to induce him to come in, exactly imitating their different voices as well as words. On one occasion he nearly frightened a poor woman out of her wits by suddenly plumping down on the top of her head as she was walking along the road. On two or three occasions strangers, when approaching the house, have been perfectly astounded by hearing what they took for the voices of invisible human beings issuing from the trees over their heads. One of the young cockatoos that was born in the acacia tree disappeared last spring, but returned the other day in a beggarly, ruinous condition, having evidently been nearly starved, but soon recovered his good looks: it is curious what could have become of him, and how he found his way back after so long an absence. The same thing has occurred with others: one of the large cockatoos deserted my place in Surrey for several months, and was continually seen associating with a flock of rooks some miles away, but at length returned. On one occasion a flock of our parrots flew to a place named Brooke, full twenty-five miles away, and eleven of them were shot by a gamekeeper who naturally thought he had secured a wonderful prize. Afterwards five cockatoos were shot altogether in the same way.

It is curious what friendships arise between birds, some of which belong to different species. A parrakeet and a green parrot were perfectly inseparable: and so, too, at my house in Surrey I had at one time a flock of eleven gray parrots; but ten of them having got killed, the survivor devoted himself to some cockatoos, and for the last two years has invariably flown about in their company. One Carolina parrot was frost-bitten in the hard winter of 1860, and lost both her legs: she looked a deplorable object ever after; but a magnificent Amazonian parrot took pity on her, and devoted himself to her in a most chivalrous manner, defending her from the attacks of other parrots, who would have murdered her, cleaning her feathers, and generally sitting close to her side. The contrast was most ridiculous between this diseased old cripple and the splendid young knight who had this infatuation for her. After some years, however, the cockatoos made a combined attack upon her; a tremendous scrimmage took place, certainly not without the "din of battle," and it ended in the slaughter of the poor old bird. They are very fond of the under gardener, who feeds them, and he is rarely to be seen at work in the garden without one or two of the cockatoos sitting on his head or shoulders.

Their arrangement of the hours is a very sensible one. Soon after dawn their voices may be heard from a distant wood, in which most of them sleep: they then come and wait for their breakfast, but the mid-day hours are always spent in sleep, after which they again seek for food, and come for their supper; but before going to bed they, like rooks, devote themselves to a regular jollification, the parrots often flying round at a great height in circles, screaming with delight; while the cockatoos fly from tree to tree with their crests erected, shrieking at the top of their sweet voices, especially if they see people in the garden, which always is a great amusement. I must confess that some of them, if not all, are mischievous, especially in the way of picking fruit; but we think ourselves more than repaid by the animation they give to the garden, and the exquisite beauty of their colouring.

## *Ornithological Notes from the County Dublin for* 1867.

By HARRY BLAKE-KNOX, Esq., J.P.

(Continued from Zool. S. S. 1196).

*Ring Dove: fondness for Salt and Sea-weed.*—I have elsewhere in the 'Zoologist' mentioned favourite foods of the wood pigeon, but omitted, perhaps, an important item in its bill of fare, *viz.* the young growth of various sea-weeds peculiar to rocky coasts. Both in spring and autumn "wood-quests" come from inland in the early morning to feed upon the sea-rocks left bare by the tide, and here feed upon sea-weeds and copiously drink the salt water from the rock-pools. In autumn they are most commonly met with along the coast. *Breeding on the Cliffs at Lambay.*—On the north and north-east side of Lambay Island the cliffs are well clothed with verdure, ferns, &c., and are inclined to be shelvy: ivy, too, grows luxuriantly in places. On the shelves and crevices of these cliffs and amongst the ivy the ring dove breeds in considerable numbers. A few rock doves still frequent this island. *Gregarious in May.*—May 6. Corn crakes are incubating, yet still the wood-quests are going in large flocks, and apparently have not commenced to pair yet. It is, I think, unusual to see the ring dove so gregarious at this season.

*Rook: malformations.*—No bird seems to suffer so from accident as the rook: one brought me to-day had the bill very curiously formed, the mandibles at the tip crossing after the manner of the crossbill. *Injurious to Growing Corn.*—Everyone knows, or at least all who have unprejudiced eyes, that the rook is a very destructive bird to growing seed-corn as well as to fresh-sown grain: thus the farmer has many weeks to suffer loss (?)—yes, even when the grain has a sprout of green two inches and more above the ground. The following note, taken on the 5th of February, must convince even the sceptical that undue numbers of rooks *may occasionally* injure the farmer during seed-time and early growth:—"Whilst shooting on a friend's farm to-day I was asked by him to shoot some rooks, which, he said, were devastating a field of wheat. On refusing to do so, on the plea that they did not injure corn once it had appeared above ground, I was met by the answer, 'Wait till you see.' Thinking it impolitic to refuse I discharged my gun, and both barrels brought pain and sorrow to sundry rooks, whose crops indeed were full of corn. I examined the field, and though it was a large one, not a square foot of it but had been bored in by the rooks (a whole rookery): there was the sprout bitten off and the grain consumed, and many sprouts laid bare all but to the grain: in fact, the whole field appeared as if walked over by a legion of giants in cricket-shoes, or, in the emphatic words of Charley, 'One 'id think it rained crow's bills.' 'Boring for grubs and wire-worms! count the grain in that fellow's throat, and show me one grub. There are friends of mine, though: look at those willy waters (wagtails) and tits (meadow pipits); they are destroying *wires* and maggots; and where do they get them, but in the *bores* of the rooks?'" There can be no mistake but this is a habit of the rooks: it cannot be fairly glossed over—he does tear up corn. But, if he wants any champion but that of common sense, I am his defender still. What good does the destruction of a few birds do? None; merely "so many the less." Five squibs of powder a-day and a boy, and not a grain of your corn goes down a rook's throat. Reason, friend: is it politic to prevent the destruction of a certain quantity of grain? Could all that is sown come up and thrive? Frequently, notwithstanding the ravages of birds, cereals grow far too thickly, in rich soils lodging with the first heavy rain: this is particularly applicable to our rich Irish soils and humid climate. Many farmers have told me that they sow extra, purposely for the crow, and yet at the same time do all in their power to prevent "her" eating the "extra." The consequence is often deplorable to themselves, in long, husky, thin and shrivelled grain, if not a total lodgment of the crop. Many farmers throw away in seed-oats the keep of a horse for the year, to get no return for the same but disappointment. In Scotland I have seen most ingenious devices to keep away rooks. About the best is to vein your field with yarn stretched from sticks: fields done in this manner appear as if covered with a huge white cob-web; the cost being very trifling. "Caps" of cotton-yarn are the best for this purpose. No rook will ever approach such a field. I never remarked any better produce in such a field than in one frequented by rooks. The rook has destroyed a vast amount of vermin off the lands where your cereals are now growing: you know it. Would it not, then, be required by Nature that something should supply the place of, perhaps, too large an amount of insect-life destroyed (it is well known that insects and birds are required to keep down vegetation, else vegetation would destroy itself), and what more worthy of his hire than the rook? Place yourself between two evils—the minimum destruction by the bird, the maximum and finally total destruction by the insect—and is it not better to submit cheerfully to the laws of Nature and her God, by whose breath all things were created, than to fight vainly on the side of avarice, the blindest canker on man's soul—the seed of every sin. It is useless for ornithologists to deny certain destructive properties of the bird; they should rather try to teach and make known their uses, for we could not live without them—paramount in Britain is the rook. In the story of the Creation we find blessing applied only to three orders of creation—the creatures of the waters, the fowl of the waters and the air, and man. Fowl are more mentioned in the creation than any other order of created beings put under man's dominion. What a delight the beautiful creatures are to our eyes and ears! what years of delight their study gives to many! If more could say with the Psalmist, "I meditate on all thy works; I muse on the works of thy hands," there would be less ignorance, and brighter days for the poor birds. "I muse on the works of thy hands *destroyed*," is too often the thought of the scientific man who never is a naturalist except by name. Though the Creator gave man dominion over the birds, as over all created life, their destruction was never intended, except for purposes of utility, food, &c. Such birds as are used for food are vastly more prolific than those meant for other ends: this at once points out their object in creation. Birds with dark unpalatable flesh were evidently not intended at all for destruction by man: being loathsome to him in this respect, he would not trouble to kill them, except to decorate himself with their plumes, and limited death would amply suffice for that: these birds chiefly destroy small birds and vermin, carrion and insect life, and are true friends to man. There is another class of birds relentlessly hated by man,—seed-eaters,—destroyers of tens of thousands of weeds, at the same time destroyers of a small amount of man's fruit and crops: most of these birds feed their young on caterpillars, and thus at once counterbalance any harm they have done: such are the vast races of the finch. The buntings and the grosbeaks counteract none of their depredations by feeding their young on insects, but amply do so by destroying the seeds of weeds. It is only a Frenchman's appetite that can be gratified by devouring small birds, quite useless, except in their own way—that of pleasing man and devouring creatures, which, were it not for their aid, would become perfect pests. These were not created to be killed, for their numbers are never excessive—never increase to an unreasonable extent. *Rookeries uniting.*—I have two good rookeries in my neighbourhood, one at Loughlinstown, the other (much the smaller) at the Hon. Mr. Talbot's, Ballinclea, Killiney. What has always seemed very strange to me is the juncture of these two rookeries in winter—all roosting in the large rookery at Loughlinstown. In the autumn the birds of each rookery, though associating during the day, sleep in their own (apparently) rookery at night. Rooks of different rookeries I have always understood to be most jealous and antagonistic to any encroachments on their feudal rights, yet such does not seem the case here. When both these rookeries join with their concomitant jackdaws, they make one tremendous whole, I really believe of some thousands. It is a grand sight to see them against a red winter evening sky, wheeling and waving in mazy flight before settling down to roost, the various cawings of the rooks and the "jackings" of the daws blending in one great strain of melody—speaking so straight to the heart of innocence, peace and plenty, of domesticity and husbandry. How often have I stopped my tandem, greatly to the annoyance of my fidgety leader, and the sovereign contempt of my friend, for one ten minutes to be in fancy among that kaleidoscopic mass; yet it is almost a scene of every day to me—at all events of those I spend on land; yet, mayhap, I enjoy that ten minutes far more than the prior hours of the day spent upon some grouse-mountain, snipe-bog or hunting country—aye, mayhap it is pleasanter than "tooling" my three quarter-breds, though my heart is in each buckle of their harness, each step they take. So much for being a lover of Nature. How dear is the scene, after months spent on the changing sea! so have I felt—so has many another. The traveller who for years has been from home, on his return to his native land and village will inwardly remark, "The old rooks are about here still, just the same as when I was a boy." Is there not a close tie between the rook and man? May generations hence say with love, "And the dear old rook is here still."

*Mealy Redpole.*—Mr. Doubleday has, with extreme kindness, presented me with a beautiful case of mealy redpoles, an adult male, a young male, and two females. This bird is very distinct, both in size and markings, from the lesser redpole. I can now say, without hesitation, that I have never met with this bird in Ireland; in fact, till the kind present reached me, I was totally ignorant of the mealy redpole. The bird forwarded to me by Mr. Gardiner, taxidermist, of High Holborn (Zool. S. S. 225), was not the mealy redpole; hence my doubts on the species being distinct.

*Snow Bunting associating with Larks.*—March 20. As they flew past I noticed the white bird, and, taking it for a variety of the sky lark, I followed it up and shot it: it was feeding quite amicably with the larks. Common as the snow bunting is in this county, I never met it inland or with larks before.

*Wheatear: early arrival in* 1867.—March 21. Ballybrack beach.

*Magpie: gregariousness.*—Magpies have flocked in unusually large numbers this winter about Ballybrack. There has been in existence since last December a flock containing from eighteen to twenty of these birds. They are invariably seen together, though perhaps scattered over an extent of some fields, rarely more than one field, but more often in immediate company. They fly in a straggling flock when disturbed, usually getting up one after another, till the beholder invariably ejaculates, "What a devil of a lot of magpies!" Some days the number rises to twenty-three; once I counted twenty-six. They roost together in a pine wood, and appear dreadfully stupid before going to sleep. A person at this time could kill any number of them by remaining in the dark wood. A friend returning with me from snipe shooting, one evening in January, killed six to get their tail-feathers to make a fan, and would, I believe, have bagged the whole flock had I not stopped him. March 21—April 4. No diminution in the magpie family: I do not miss the six shot.

*Willow Wren: early arrival in* 1867.—Though the past winter has been the hardest for very many years, and this month particularly severe, being a continuation of snow storms and easterly gales, yet to-day (March 27th) the little willow wren made his appearance—considerably earlier than usual. The wheatear, too, has come very early. This should prove that climatic influence cannot sway migration. Here we have birds leaving their winter quarters in the face of snow and storm to reach a country not yet free from the thrall of winter, even earlier than their appointed time.

*Sand Martin: early arrival in* 1867.—April 2nd.

*Spotted Flycatcher: occurrence in the County Dublin.*—May 16. Shot one of these rare little Irish migrants: it was perched on the branch of a tree, and was shot without knowing the species: there were other birds with it, perhaps of the same kind. I never met with it before in Ireland, though I know of instances of its occurrence in this county. Watters, in his little book on Irish birds, says, "Unusual" in the "eastern counties," and "Very seldom remarked in any of the counties about Dublin." Thompson says, "A regular summer migrant to some parts of Ireland." This bird is in my collection. My English experience of grisola is that it only frequents gardens and shrubberies, preferring to build between the boughs of old timber in such places to any other. It is therefore only known to such as frequent such places, and therefore may be more common than believed in this country.

*Variety of the Sparrow.*—There is a sparrow frequents the Ulverton Road, Dalkey, with a white tail.

*Decrease of the Martin: Query on Name.*—The martin has been a rare bird in my district this year: at Howth and Lambay Island, where it breeds usually in great numbers, on the face and edges of the bold sea-cliffs, amongst razorbills, guillemots and herring gulls, I saw nothing like the usual numbers. Why is this bird called "urbica" (city-frequenting)? In Ireland it is far more "maritima."

*Swift: decrease and its cause.*—The line of the Dublin, Wicklow and Wexford Railway Company is skirted by the sea-shore for many miles immediately on leaving the Dalkey tunnel: under Killiney Hill it is a considerable height above the shore, and so close is it built to the edge of the cliff that it has been found necessary to build immense walls from the sands below to the summit, to prevent the natural embankment from falling, and against the ravages of the sea which washes the base of these cliffs. The sea is slowly encroaching on our east coast and receding on the west. In these steep walls several pairs of swifts have bred now for years, making their nests in the holes either where the mortar has dropped out or where they picked it out themselves. The aspect of this part of the coast is almost due south, easting; so when the sun strikes on the walls they must be intensely warm and congenial to the swifts. This year about fifteen pairs of swifts bred in these holes, and it was my delight to watch them playing about on their wonderful wings. One day in June, going along the coast, as usual I stopped to watch my dear little friends, and see if any young had yet made their appearance. I was surprised to see only three old birds hawking about where I expected a score at least; nor had I long to wait to discover the cause, for soon one of the three birds fell struggling at my feet—shot; the sportsman, a bearded individual, about fifty years of age: he was evidently some frowsy townsman, come to Dalkey for sea air, and was living in a peaceful little spot overhanging the railway at this delicious place, from the garden-wall of which he had shot not only all my poor swifts, but also every martin in his neighbourhood. Just fancy the horrible position of the poor young swifts in their nests dying of starvation—perhaps a poor wounded mother, just able to struggle into her nest to die with her offspring. Tell me, is there no retributive justice hereafter? are there sins that do not need repentance? I remember these walls some years ago to be inhabited by about fifty pairs of swifts, and, allowing eighty young—a small average—to the one hundred old birds, I had in this one breeding-place nearly two hundred swifts. Oh! such a grand sight, on a still calm July evening, as this mighty host of wings would be at one time—a massive scribble upon the firmament, resplendent with the hues of sunset; at another, beneath, between the sea and the spectator a kaleidoscopic cloud, dizzying the brain to follow: again, with the rush of a torrent, the whole mass would drive past, screaming like so many demon imps in pursuit of prey—off out of sight in an instant on their gay journey to gladden by their strange flight some far-off scene. In their absence, how oppressive feels the air, uncooled by their winnowing wings: the silence equally so, were it not for the gentle murmur of the sea upon the rocks beneath, or the quiet "chack, chack" of the stonechat to its young, or the ventriloqueous "burr" of the nightjar far up on the hill-side; yet these sounds but spoke of silence the more. The tired eye might drop on the jerking wings of the stonechat, perched on the loftiest spray of a furze-bush; or, mayhap, on the innocent dark eyes of a rabbit, gazing from its burrow; or above, upon the hill-side, the form of a kestrel sharply defined on the clear evening sky, poised in air above its prey. But no time for noting more; again the dark forms of the "black martins" scrawl and scribble and knit and weave with mazy lines the bright face of heaven; again their cheery cries ring out and say, "But one month more and we're away to sunny climes; so watch our gambols well, for life is short, the winter comes, for where you watch us now the storm will rage, and gulls and sea-fowl fill the place of swifts." Yes, summer's gone and winter's come these many years, and thou, poor swift, art dying out apace! Swifts breed in the old Castles of Dalkey, in its Roman Catholic Chapel, and formerly in its Church also, in Bullock Castle (three or four pairs), in the battlements of Castle Park (the residence of Mr. Walter R. Atkin), and in some of the old hill-quarries of Dalkey; in Kingstown, in some of the sacred edifices, and several pairs in the sides of an old quarry at Stoneview: in my own district I can quote no other places, and am decidedly of opinion that swifts are on a rapid decrease.

*Night Heron.*—I mentioned a night heron as having occurred in Belfast (Zool. S. S. 457). The gentleman who communicated the intelligence to me got possession of the bird, and it is now in my collection: it is a young bird of the year. The authenticity of its occurrence is also vouched for by my friend Sheals, of Belfast, who is restuffing it for me: the bird was brought to him to stuff, but his charge being too high the person got it done elsewhere. I believe the bird was alive, having only its wing broken by the shot. The person who had it called it a bittern.

*Merlin: abundance in County Dublin in the Autumn of* 1867.—August 25. Merlins have been unusually numerous about Dalkey this year, and I have also met with them in other parts of the county; I have been informed, too, of their general occurrence. I shot the first in Dalkey Sound, flying from Dalkey Island to the mainland: I had perceived it previously chasing a titlark on the island: it was a female in first plumage. August 28. A second was seen, at Booterstown, chasing a small bird. A third I killed, about two miles from land, during a dense fog, in mistake for a tern, so small did it appear: it was a male, in first plumage. September 19. A fourth started off the rocks of Dalkey Island, while running in for shelter from a terrific squall; made straight away for sea: I doubt if it could have borne up against the wind, so in all likelihood it found shelter on the Welch coast. I met with about a dozen altogether. Considering its rarity in this county, it is only fair to conclude that a flight of migrants must have arrived on our shores. In no instance did I see them hover or take prey from the ground, but invariably from the wing: the small birds, on which they solely preyed, were rarely taken till quite terrified and exhausted in their endeavours to escape.

*Kingfisher: Notes on its Food.*—Whilst frequenting our granite coast the little kingfisher is quite a gem out of place—not disparagingly said of the beautiful denizens of the sea, but so bright a bird does not seem at home amongst the brown sea-weed and the granite rock. Notwithstanding his gaudy coat he can fish in salt water and take from our rock-pools fare he never gets at home—small shrimps, prawns, and the young of many of our rock-fish. I cannot understand why they frequent the coast from August to November and December, because the streams are just as full of fish then as at any other time.

*Heron: on its Food.*—Most people think that the heron is quite a land bird, frequenting only swamps, lakes and rivers; but such is by no means the case: he seems quite as much at home on our wild strands and slobs—perhaps I should say more so, for there he is out of danger—as when fishing by the edge of a river in some inland county. Along our rocky coast they may be seen, from September to April, standing motionless or stalking among the sea-weed-covered rocks and pools at low water. At all seasons they are to be met with wading upon our wild "slobs." Their food in such places consists of various fishes, green and other crabs, prawns, shrimps and many other crustaceans and Asteriæ: they will go, without any seeming dislike, from a feed of trout to this more humble fare. October 10. The stomach of a heron examined to-day was very empty, containing only a few small sticklebacks. How miserably hungry the poor giant must have been to have condescended to strike such atoms! October 20. Three fishermen this year work cod and conger lines from the little harbour of Bullock. Herring is the bait used for the conger, the whelk that for the cod. In breaking up the whelks and cutting the herrings* there is a certain amount of fishy *débris* left about the quay; this, added to the bits of herring not eaten off the hooks, and not used a second time (the conger eel is only taken on the purest bait), bits of whelk discarded for the same reason, together with quantities of sea anemones, star-fish, &c., adherent to the lines, a certain amount of entrails, the trimmings of skates and rays, &c., makes a banquet for a number of herons. Any morning I go down I see five or six of these ogres making away, in the dim dawn, from their horrid feast—their huge wings looming through the gray darkness, phantom-like, in the air—their wild-sounding and reiterated "pha-hank"—and the leavings of their repast, and the ground around soiled by their fœtid fœces—forcibly calls back one's school-days and Virgil's harpies:—

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* A herring makes three baits: the lines have frequently upwards of five hundred hooks. The congers weigh from fifteen to eighty pounds; twenty, thirty and fifty pounds are common weights.

"——— With ordure still, unclean,
With claws for hands, and looks for ever lean:
* * * * * *
They snatch the meat, defiling all they find,
And, parting, leave a loathsome stench behind.
* * * * * *
With filthy claws their odious meal repeat,
And mix their loathsome ordures with their meat."

Herons in nature will eat other than live fish. I think the poor heron a wrongly blamed bird in many respects. Many authors have calculated his depredations by the *weight* of fish he will eat when crammed in confinement: surely this is not fair, for in nature he cannot, if he would, eat to satiety; for fish are quite as well endowed with instinct as the heron, and I fear the poor fellow often feels this. I have watched herons by the hour, through a glass, standing motionless upon a lake's margin, or standing on one leg by a river, waiting as patiently as any Isaac Walton for a nibble—have seen them miss their stroke, too, as will the cleverest fly-fisher. I have walked streams where the trout might be seen scudding under the banks in abundance, and have shot herons patiently fishing in them, and yet without a trout or fish in either gullet or stomach. In the spawning season they are more destructive, the infatuation of spawning making the trout quite reckless, and the shallow water giving the heron plenty of time to catch them. I can offer no extenuating circumstance for their destruction of frogs and brook-eels—perhaps no one will grudge the "old crane" such fare.

*Missel Thrush.*—The missel thrush sung, for the first time, on the 13th of December.

HARRY BLAKE-KNOX.

Dalkey, September 7, 1868.

*Errata.*—Zool. S. S. 1187, line 18, *for* "will come the winter breezes," *read* "will cause," &c. Page 1192, line 18, *for* "In parts of May," *read* "In parts of Mayo." Page 1195, *for* "And last, not least, the redbreast," *read* "red breast"—"red" and "breast" disconnected.—*H. B.-K.*

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## *Ornithological Notes from North Lincolnshire.*

### By JOHN CORDEAUX, Esq.

(Continued from Zool. S. S. 1286.)

### JUNE, JULY AND AUGUST.

*Swift.*—We have certainly more than an average number of swifts in the neighbourhood, and I am glad to see two or three pairs have this season taken up their quarters in an old church tower. They have also appeared in other localities where not previously seen, at least for many years.

*Corn Crake.*—Common as this species was in this parish during the seasons of 1866 and 1867, I have this year never heard its well-known call-note. The absence of this bird from its late haunts is remarkable, and not confined to this parish: a gentleman living in the neighbourhood has also remarked the absence of the corn crake, and informs me that he has not heard them calling during the spring and summer. Perhaps the excessive drought has induced them to seek other quarters in preference to our burnt-up meadow lands, which have barely afforded shelter for a lark.

*Effect of Dry, Hot Weather on Birds.*—Have any of the readers of the 'Zoologist' noticed during the late dry and hot season any difference in the plumage of some of our familiar birds? I have, in this district, so repeatedly been struck with the unusually lighter appearance of our sparrows, larks and corn buntings than is the case with these species in ordinary seasons, that I think I cannot altogether be mistaken, and that this is not a mere fancy on my part. This lighter shade of plumage has been most apparent in the corn bunting, which bird, by the way, I have observed is more subject to variations of plumage than any other of our smaller species. The dry weather has driven many of our birds to seek out unusual and unseasonable sources of food. Peewits have frequented the moist margins of the drains instead of the open fields, feeding along the edge of the water; thrushes have drawn upon their winter supplies and accumulated large collections of broken shells around some favourite stone or stump;

blackbirds I have seen on the roads searching in horse-dung for stray grains of corn; rooks attacked the crops in an earlier stage of their growth than is ordinarily the case. The supply of insects has been almost inexhaustible, and it may be owing to this circumstance that the sparrows have done so little damage to the wheat crop: I never had less to lay to their charge on this head.

*Grasshopper Warbler.*—This is a rare species in North Lincolnshire. Up to this season I have only noted a single instance of its appearance (May 15, 1863). This year is, however, an exception: their peculiar and unmistakable note might daily be heard in the low-lying plantations near the streams: I have heard in the summer evenings as many as three all "reeling" in concert. They are a most difficult bird to see, as on the slightest noise they drop from their perch—often the side of a tall reed—and are lost amidst the dense aquatic vegetation.

*Missel Thrush.*—July 27. Small flocks seen flying over the parish.

*Probability of the Green Sandpiper breeding in North Lincolnshire.*—Two pairs of these birds have remained on our "beck" during the summer,—one pair in this, the other in the adjoining parish,—and I think it is very probable they nest in some one of the dense plantations in the vicinity of this stream. Some years since I remember putting up several young birds near a willow holt on this same stream: this was early in August; and the fish-keeper informs me that he has yearly observed the young brood with the old birds about this date: this year he saw the two old and two young birds together on the 31*st of July:* he says that they usually have three or four young ones, but this year only two. Occasionally during July I put up a single bird from a beach on this stream: it would fly round and round the adjoining plantations, constantly uttering its shrill whistle, and might be found every day near the same spot.

*Snipe.*—First seen on the 26th of July.

*Whimbrel.*—July 28. First autumnal appearance: a flock of about thirty seen in the marsh.

*Golden Plover.*—August 6. Four seen together in the marsh were in full summer plumage.

*Greenshank and Redshank.*—August 18. I shot a beautiful mature male greenshank on the "fittiss" this evening: it was flying in company with a redshank, and, by a singular coincidence, got both birds at the same shot. The stomach of the greenshank contained, exclusively, the remains of a small crab about the size of a large pea.

Another bird of this species was seen the same evening flying along the foreshore.

*Variety of the Lark.*—August 22. Saw a very beautiful variety of the lark in the marsh this afternoon; it was all over a rich buff or isabelline colour. The note and manner in no way different from its companions: it was, however, much tamer, permitting a rather close inspection.

*Swift.*—August 22. Last noted in Lincolnshire; six seen together. August 28. Last noted in Cheshire; one seen.

*Bartailed Godwit.*—August 22. Three seen on the "flats;" had a long look at them through the telescope. One was in full summer dress, the other showed slight traces on the flanks and back of a change to the winter plumage. These birds were constantly thrusting their long bills into the ooze: I never saw such energetic feeders; it seems with them the one object of life; but they are not so absorbed in eating as to neglect their safety, for on the slightest sign of danger they rise, and, sounding a shrill wild alarm-note, are off to a more distant part of the flats.

*Summer Warblers.*—August 22. Many of our smaller summer visitors are now moving southward: this is evident from the number I now see in our isolated marsh hedge-rows and bushes—situations where they are not seen during the spring and summer. These marsh "hedge-shelters" now swarm with little wanderers, principally whitethroats, lesser whitethroats, willow wrens, sedge warblers and an odd redstart or two. I never knew the latter bird breed in this parish: I once saw one in an osier-bed near the stream as late as the 8th of October.

JOHN CORDEAUX.

Great Cotes, Ulceby, Lincolnshire,
September 8, 1868.

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## *Life-Histories of Sawflies.* Translated from the Dutch of M. S. C. SNELLEN VAN VOLLENHOVEN, by J. W. MAY, Esq.

(Continued from Zool. S. S. 642).

### NEMATUS VARUS, *De Vill.*

Larva and imago, *De Geer, Mémoires* (German translation), vol. ii. 2, p. 264. *Ratzeburg, Die Forstinsecten,* iii. p. 119, note.

Nematus niger, ore pallido, femoribus et abdominis cingulo rufo, tarsorum posticorum articulo primo dilatato.

De Geer, in his 'Mémoires pour servir à l'Histoire des Insectes,' gives a description of Nematus septentrionalis, *Linn.*,* the imago of which has the hinder legs broad and flattened in the same manner as in this species, and at the end of his description he states that he has reared a similar imago from an entirely green larva having only some black dots at the side of the body, and which merely differed from the former in the females having red-brown femora the same as the males. De Geer added, "Perhaps nothing more than a variety of the former, but also possibly a distinct species, although the difference is nearly imperceptible."

I take the insect reared by the Swedish naturalist to be Nematus varus, more especially from the description of the larva, however imperfect that may be. I am strengthened in this opinion by the following observations of Ratzeburg (*loc. cit.*):—"Linné (Fauna Suec. 10, 1558) hatte unzweifelhaft die ächte T. septentrionalis, jedoch nur ♂, vor sich. De Geer's (l. l. ii. p. 264) Erziehungsresultate stimmen mit den meinigen überein, denn er beschreibt nur die ♂, wie Hr. Hartig und sagt von dem ♀, alle Hüftbeine (worunter er die Schenkel versteht) seien schwartz. Aus andern ganz grünen Erlenafterraupen, nur mit einigen schwarzen Punkten an den Seiten des körpers, erhielt De Geer dergleichen Blattwespen mit langen und breiten Hinterfüssen, nur hatten die ♀ eben so rothbraune Hüften, wie die ♂. Sicher war diese Blattwespe dieselbe, welche Hr. Graff erzog und die, nach den von mir auf dem Berl. Museum verglichenen Stücken zu urtheilen, zu Nematus varus Villaret gehören würde."

The result of my observations of this species may be stated as follows:—

At the end of the summer (August and September) I often found solitary green sawfly larvæ feeding on the alder: these larvæ had no other ornamentation than some black dots on the sides and the legs. A similar larva was once sent to me by my friend Wttewaall in the month of July, from which it appeared to me that there must be more than one brood in the year. Most of mine went into the earth as larvæ, a few spun up: only two imagos appeared from the cocoon. It was thus apparent that this species was difficult to rear. I have not seen the egg, and am not aware whether it is deposited in the petiole or the nervures of the leaf. I also did not see any very young larvæ; but

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* Described in vol. ii. of the 'Transactions of the Netherland Entomological Society,' and at p. 8175 of the 'Zoologist.'

I observed some which I supposed had undergone but two moults, and these completely resembled the full-grown larva.

When full grown they exceed 20 mm. in length, and are nearly cylindrical, but somewhat strongly wrinkled on the dorsum. The head is brownish green, the colour of dead leaves, with a round spot on each side, in which the eye is placed. The colour of the body is sea-green. A row of black dots and dashes extends along the sides, beginning at the neck and following the direction of the spiracles to the last segment; a similar row is found just above the legs, but does not extend quite so far (fig. 2). There are in all twenty legs; the thoracic legs are green, with black dots; the abdominal and anal legs are without dots; the tail end is produced on both sides into a spine, and has the posterior border brown (fig. 3).

This species, like most, if not all, of the genus Nematus, on being touched defended itself by raising and curving the abdomen, displaying the under side of that part of the body. On observing this with a lens I found on the sixth, seventh, eighth and ninth segments four dark green glands of a very elliptical shape, which the animal had the power of entirely retracting, so that nothing could be seen in their place but little folds of skin. When only moderately projected these glands had the appearance of *a* in fig. 4, in which *b* represents the two legs: if, however, I took the animal between the fingers and gently compressed it the gland was made to project further, and assumed the appearance of *a* in fig. 5, when it also appeared to me that I could distinguish an opening at its extremity. Although, after this treatment, when I released the animal, the gland was entirely retracted again, I doubt whether this excessive protrusion of it was normal, as I never saw the larva protrude it so far of its own accord. Beyond this I have not observed anything remarkable about this insect in its larval state. When it was full grown it crept into the earth, where it made a simple hard cocoon, which I have represented at fig. 6.

The larvæ, which had spun up in August or September, produced the imago in the early spring. I found one imago, which, however, was dead, in a tin box on the 1st of March; the larva had spun up in the first week of August. I cannot be quite certain that this imago had not emerged in the autumn, but as it is my habit frequently to inspect my nursery during the summer and until late in the autumn, I presume the perfect insect emerged in February, which would certainly be very early.

The other imago made its appearance later in the year. On comparing this sawfly with that represented on plate 5 in the second volume of the 'Transactions' (Nematus septentrionalis), it will be seen that a great resemblance exists between them. Both are characterized by the remarkably expanded hinder tibiæ and tarsi: the great difference between the present and the species before treated of consists in the red femora and unspotted wings. The head is black, with the emarginate border of the clypeus and the upper lip obscure white; palpi reddish white; mandibles shining dark brown. Antennæ long, normal, black; eyes also black, but the ocelli pale brown. Thorax shining, black, but hirsute, in consequence of which the smoothness is somewhat obscured; the borders of the prothorax and the tegulæ are brown. Wings brownish white, transparent; the radius, posterior margin of the stigma and the externo median nervure pale brown (fig. 7); the anterior nervure of the posterior wings is also of this tint, the remaining nervures being deep brown or black. In the second submarginal cell is a black horny spot. The cenchri are white; abdomen black, shining; the third, fourth and fifth segments and the margin of the second clear red; the anal projections and the parts surrounding the saw are black and pubescent. All the coxæ are black, with the extremities obscure white; the anterior legs are pale brown; the femora of the second pair of legs are pale reddish brown, with their tibiæ pale brown and the tarsi of a yet paler tint. The posterior legs have the femora thickened and of a clear red colour, the knees being black; the tibiæ are just tipped with black at the base, then white nearly to the middle, then dilated, flattened, black, very shortly hirsute, and having two unequal spines. Tarsi black, the first joint being particularly broad and flattened; claws brown.

This insect is very seldom taken on the wing. According to Hartig the male has the same colouring as the female.

### CLADIUS ALBIPES, *Hartig.*

Larva and imago, *Hartig, Blatt. und Holzwespen,* p. 178 (albipes). *Brischke, Abbildungen,* &c., p. 10, tab. ii., fig. 2. *Ratzeburg, Die Forstinsecten,* vol. iii. p. 129.

Cladius antennis maris simplicibus, niger, pedibus, pro majori parte albis.

We have now to describe a species having four generations in the year, which appears a large number when we consider that most sawflies have but two broods in the year, while many have but one, and even some Cimbices, as a rule, pass two years in the larva state. We have also to do with a species, which, if it be not yet classed among injurious insects, will probably soon have to be placed in that category. If I remember rightly Dr. J. Wttewaall informed me that more than one cherry-orchard in Gelderland had been defoliated by the larvæ of this species.

My first acquaintance with these larvæ dates from July, 1845, at which time I found them in my garden on the bird cherry and hawthorn. I have since found it in great numbers on cherry trees. Hartig and Brischke found it on the cherry; the latter author observed it on the raspberry also. The larva (figs. 1 and 2) attains a length of 13 mm.: it is depressed and laterally expanded; body hirsute; legs twenty. The colour of the head varies in different examples; in some it is shining ochre-brown, the upper jaws being dark brown; on the vertex is a quadrate black spot, and two circular black ones forming rings round the eyes; in others (fig. 4) the head is greenish, irrorate with brown; the upper jaws green, with the apices ferruginous, a transverse brown spot between the eyes, a black rounded spot on the vertex, and two similar ones on the sides; in all cases the head is pretty closely beset with gray hairs. The ventral surface and sides of the body, as also the legs, are sordid greenish white; dorsum grayish or brownish olive-green, and not cinnamon-brown, as represented in Brischke's figure, nor bright green, as described by Hartig. I have only once observed a full-grown larva, which had the dorsal surface of the four anterior rings ferruginous: this was in the month of August, and the larva in question was on a Morelle cherry tree. A narrow yellow line runs along the middle of the olive-green space. On the back are two interrupted rows of small projections, always in little clusters of three or five, as shown at fig. 5, which represents the back of the fourth abdominal segment. The back and sides are covered with pretty long blackish hairs. Between the head and the green coloured dorsum is a greenish white transverse line; a similar but somewhat undefined line is also found at the base of the last segment.

The trophi of the larva are described and figured by Hartig.

There are no distinct scales on the thoracic legs; the claws of these legs are small and of a brown colour. The fourth and penultimate segments are apodal.

The larvæ were generally on the under surface of the leaves, and ate holes in the centre portions, as shown in the left-hand leaf in our figure: when there are many together they only leave the principal veins and here and there a little piece of the margin, as shown in the right-hand leaf in the figure just referred to.

These larvæ spun up on the 12th of July; the wasps appeared on the 4th and 5th of the August following. I have since observed that the change from larva to imago does not always take twenty-four days, but that sometimes the unusually short period of four or five days is sufficient. A larva taken on the Morelle cherry spun up on the 21st of June, and the imago was produced on the 26th of the same month. If the metamorphosis always proceeded as rapidly six generations might reasonably be looked for in favourable years.

The pupa of this quickly-changing larva is represented at fig. 6; it had spun a cocoon against the side of the glass bottle in which it had been placed: this cocoon was not closed in at the side against the glass, so that it could easily be observed through the side of the bottle. The cocoon was double, and had the appearance of dried green sputa; fig. 6 *b b* represents the outer margin or cocoon, *a* being the inner one; the pupa is seen lying on its back, having already nearly acquired its full colour, while the larval skin is not, as might have been anticipated, at the end of the body, but under the meso- and metathorax: it may, however, have been pushed up towards the head by the movements of the pupa. The larvæ construct their cocoons against the stems of trees in cracks and crevices, and also among dead and fallen leaves.

The imago is between 7 and 8 mm. long, expanding to 16 mm. The body is of a brownish black colour; head flat and broad; the antennæ, composed of nine joints, are of the length of the body; the first two joints are very small and the third is cylindrical, a little compressed on the inner side; the fourth is somewhat longer, the succeeding joints being gradually shorter; they are hirsute, especially on the upper side, but have no knobs or pectinations. The cenchri on the thorax are sordid white. The legs are slender and weak; the bases of the coxæ and the middle of the femora brownish black, all the remainder being obscure white, or even, in some individuals, pure white as far as the tips of the tibiæ, which, with the tarsi, are pale brown, less so, however, in the case of the anterior than of the posterior legs (see fig. 7).

The wings are somewhat broad and rounded, having the radius and stigma very pale brown, the other nervures black. The nervure between the first and second submarginal is rudimentary, but in the last-named cell is a black horny spot. The saw (fig. 10) and ovipositor (fig. 11) of the female have much resemblance with those of Cladius uncinatus, *Klug*, which I described in the fourth volume of this periodical, and represented at plate 4. It will be found on comparison that the difference between them is very small.

I think Cladius albipes occurs in every part of this country; I have also received it from Belgium: according to the works referred to, it is common in some districts of Germany. I am uncertain whether it is found in France or England, as I cannot identify it as being mentioned in the works of Lepelletier, de St. Fargeau or Curtis.

*Arrival of a young Koodoo at the Zoological Gardens.*—We are glad to announce the accession of a young male koodoo to the collection in the Regent's Park. The koodoo is one of the most magnificent and stately of the African antelopes, the full-grown animals being furnished with magnificent spiral antlers of four feet and upwards in length. Some years since a specimen was received at the Gardens, but in such bad condition that it lived only a few days. The recent arrival is in good health, and is gaining flesh rapidly.—*From the 'Field.'*

*Arrival of a Two-horned Rhinoceros at the Zoological Gardens.*—The Zoological Society of London have just received an important addition to their extensive living collection, in the shape of a two-horned rhinoceros (*Rhinoceros bicornis*). The Indian form of rhinoceros has long been well represented in the Society's menagerie, but the very different African type, to which the present animal belongs, has been hitherto a *hiatus valdè deflendus* in the series. The animal which arrived yesterday, and which is believed to be the only individual of the species that has reached Europe alive since the days of the Romans, is a young male, about six feet long and three and a half feet high. It was captured in the autumn of last year, in the vicinity of Casalá, in Upper Nubia, by the native hunters employed by Herr Casanova, an enterprising traveller of Vienna, and conveyed to Hamburgh (*viâ* Alexandria and Trieste), along with a number of African elephants and other animals. Here it passed into the possession of Mr. Carl Hagenbeck, a well-known dealer in living animals, of that city, who has now parted with it to the Zoological Society at the price of £1000—being, we are informed, the largest sum they have ever paid for a single animal. The rhinoceros is remarkably tame, and in excellent health and condition. It is fed principally on clover hay. Pending the completion of the large building now in process of erection, which is destined to contain the Society's series of elephants, rhinoceroses and tapirs, it is temporarily lodged in the giraffe-house.—*Id.*

*Albino Water Rat.*—I am not aware whether a white, or rather a sort of creamy pink, water rat, with pink eyes, has been often seen before; I certainly never saw or heard of one until I caught the one I now have ten days ago. One of the gardeners saw an odd animal run out of the grass, and threw his hoe at it, which cut off about two inches of the tail. A cage-trap was set near the hole it ran into. In less than half an hour the rat walked quietly into it, and was caught alive. It seems quite contented in a cage, and eats cabbage-leaves in your presence, when you give them to it; in fact, it seems quite at home.—'*Field.*'

*White Kangaroo.*—One of the most beautiful natural curiosities in the colony is in the possession of Mr. Hepburn, of Ballarat. It is a milk-white kangaroo, as tame, docile and harmless as it is possible for any domestic animal to be.—*Australasian.*

*Uncommon Birds at Cobham, Kent.*—We have had several rare birds at Cobham this summer. During the beginning of August a buzzard, of the common species I think, was several times observed. I saw it myself quite near me one afternoon, and it was observed near the same spot on the evening of that day, and on the next day. Each observer described it as a very big hawk, of owlish appearance and brown colour. A young crossbill was caught in the garden of Cobham Vicarage during the summer. As usual the hobbies are to be seen in their old quarters, and the same number—three: with my glass I could examine them with great accuracy, noticing the white cheeks, black moustache, and the stripes on the breast. In the same wood I heard and saw a raven on the 3rd of September: it is the first I have seen for a long time: one ancient pair were shot on account of their annoying the herons so much. Two broods of the great spotted woodpecker have been reared here this summer: the natives call them "magpie galley-birds," galley-bird being their name for woodpecker.—*Clifton; Cobham Hall, September* 4, 1868.

*A White Sparrowhawk in Suffolk.*—A beautiful variety of the sparrowhawk, perfectly white, was shot by Mr. Charles Nunn, on his farm at Fornham St. Genevieve, during the latter part of last July, and was, I am informed, preserved by a bird-stuffer at Bury St. Edmunds.—*T. E. Gunn; Norwich, September*, 1868.

*Blackbird nesting in a Cauliflower.*—During the past season a cauliflower was growing in the garden of Mr. W. Tunnill, on the Downham Road, Ely, weighing nearly nine pounds, on the top of which was a blackbird's nest containing four eggs. The nest was neatly covered with the leaves of the plant.—*Id.*

*Reed Warbler.*—As I see, in the September number of the 'Zoologist' (S. S. 1375), that the Rev. H. Harpur Crewe does me the honour of wishing to hear further from me on the subject of the doubtful reed warbler, which I brought before the notice of the readers of this publication some few years since, I can only say that the experience of the subsequent year strengthened my belief that this bird will eventually be placed as a distinct species from Arundinacea. The year after my first communication on this subject I obtained at the lilac plantation four specimens about the last day of May: being obliged to shoot them at very close quarters, as the lilacs, drawn up to a height of twelve feet or more, form nearly a thick canopy at the top, two specimens only were good, one of them exceedingly good; both are added to my collection. Since that time, although carefully looked for each season, not another specimen has been seen there, or indeed in any part of our parish. The plumage looks altogether of a darker hue than Arundinacea, the head flatter, in a straighter line with the beak, which seems both longer and narrower. The whole head more resembles in shape and appearance the grasshopper warbler than the reed warbler. The gape also of this bird is towards the base and throat of a fine orange colour when fresh killed, whereas in Arundinacea—at least, in those I have seen in the flesh—the gape is yellower. My smaller birds being cased in classes, I have placed the common and this doubtful species in close proximity, and shall have much pleasure any time after October, when I am again settled at home, in giving any ornithologist who may think it worth coming as far as Hampstead an opportunity of comparing them together. Mr. Crewe adds that Mr. Gould saw his specimen, but ignored it as a distinct species. Mr. Gould also saw my *earliest* specimens, which were, I confess, in bad plumage, as they were killed after the breeding season, but still they had such a distinctive appearance that, on his very kindly giving me his box of skins of Arundinacea to examine, I was able at once to pick out *one*, and *only one*, similar bird to mine, from his series: I remember it was ticketed, but I forget the locality.—*Robert H. Mitford; Hampstead, N.W., Sept.* 17, 1868.

*Isles of Scilly: Autumnal Migration.*—It is a curious fact, and one which I have noticed for several years, that a great number of the British summer visitants, which are almost, and some entirely, unknown in West Cornwall in the spring and summer months, are every autumn in the migratory season to be found at the Scilly Isles, with the exception of the nightingale. Amongst the common warblers I may instance the garden warbler, lesser whitethroat, common redstart, reed warbler, wood warbler, pied flycatcher, and also species of other families, which, for some hidden cause, scarcely ever are seen in this neighbourhood, have repeatedly been observed in the Scilly Isles in the great southern movement season. I have just had word that whitethroats (a common species with us all the summer), redstarts, redbacked shrikes, whinchats, reeves, &c., have made their appearance at Scilly. I may add that a swift and sand martins were observed at the same time, and also two crossbills: a late date for the swift. Temminck's stint was shot at Scilly last week. A large flight of yellow (Ray's) wagtails arrived with the other birds, all in pale buff plumage, without much tone of yellow: these, and I expect a large proportion of the first flight of other migrants, are birds of the year. I have remarked for several years that the species of Tringa, Limosa, and other waders in the early autumn, exhibit immature plumage, from the borders of the dorsal plumage being margined with buff-yellow, such as the knot, godwits, curlew, Tringa, &c., &c.—*Edward Hearle Rodd; Penzance, September* 15, 1868.

*Crossbills at Leicester.*—On the 12th of July a flock of eight crossbills visited our garden, attracted by a pair of tame caged crossbills which were hung on a tree. They were very clamorous on observing the caged birds, and flew round several times before alighting on the fir trees. There were two richly-coloured red birds, and the rest greenish. They stayed for three or four days, scattered about the gardens and plantings in the neighbourhood. They generally fed in silence, and were not easily alarmed: in feeding they clung to the branch or to a fir-cone, and wrenched the scales of the cones asunder, pecking out the seed and dropping the empty cone. Quantities of open cones were scattered under the trees: cones which have been opened by crossbills generally have a ragged look. In the pine wood of Ben's Cliff, in this county, I have noticed great quantities of these ragged or frayed cones, and am convinced they were eaten by crossbills, as cones from which the seeds have been extracted by our tame crossbills have the same appearance. I have never observed crossbills in this county before, and was on the point of shooting several, to make assurance doubly sure, but forbore doing so. Macgillivray, in vol. iii., mentions a pair breeding on the borders of Bradgate Park; and I think some visit the large fir woods in winter. But this is also interesting, as they occurred so near a large town—within half a mile. A pair were seen in the garden and neighbouring woods last week. Our tame birds climbed about the cage with their bill, like parrots, lifting the larch-cones off the floor, but leaving the larger cones on the cage bottom, holding them with the claw and wrenching the seeds out. They had a curious way of tearing the laminæ or scales off the cones to pieces, after extracting the seeds.—*Theodore C. Walker; Woodside, Leicester.*

*Scarcity of Hirundines.*—There seems to be a great complaint of the scarcity of Hirundines; my experience of the seasons leads me to quite a different conclusion. The swallow (*Hirundo rustica*) arrived very early: the first was seen on the 29th of March; but the first martin (*H. urbica*) did not arrive until the 1st of May. Of swallows we have a great increase, and of martins it will be sufficient to say that where there were eight nests last year there were this year above forty, chiefly owing to the additional buildings and the putting of a large projecting eave round the house. I believe, if the protection from weather was made better in any given locality, there would be a large and continued increase. Some years ago, when resident in Lincolnshire, there was not a martin's nest in the village, but upon the erection of a new vicarage, with projecting eaves, they soon made their appearance, and from a solitary nest increased in three years to above fifty. The martins this year, with the exception of five that had young ones, left the village on the 14th of August, and now (the 7th of September) they have all gone. The swallows have also began to congregate, morning and evening, and to-day they have been basking in the sun, on the slates, the greater part of the day.—*J. Ranson; Linton-on-Ouse, York.*

*White Woodcock: Correction of an Error.*—In my former note on this subject (Zool. S. S. 1220) I stated that the bird was shot in the North of Yorkshire: I have since found this to be a mistake, it having been killed at Tain, in Scotland.—*T. E. Gunn; September*, 1868.

*Parasitical Worms in the Intestines of a Cuckoo.*—On the 29th of August I dissected a young male cuckoo, and, although very fat, I found a large number of tape-worms attached to the intestines: they measured from one inch to two inches and a half in length, and were collected in clusters of three, four, seven and eight individuals: each group had worked a hole nearly one-eighth of an inch in diameter, from which they derived nutriment: they were loosely attached. I have preserved some of the worms in spirits.—*Id.; September* 10, 1868.

*Great Snipe near Christchurch.*—A great snipe was shot near Christchurch, in Hampshire, on the 1st of September. I skinned the bird with difficulty, for it was excessively fat and swollen besides, owing to the hot weather. The inter-scapulars, scapulars and back, instead of being "rich brownish black," as described in Yarrell, are buff; hence I conclude it must be a bird of the year. Mr. Gatcombe informs me that, on Thursday, the 3rd of September, he saw another, in the flesh, at a London birdstuffer's, just sent up from the neighbourhood of Reading, shot probably the same day as mine. When my father visited Norwich fish-market, in former years, he always used to see one or two, or perhaps three, great snipes there during the first fortnight in September.—*J. H. Gurney, jun.; The Bank, Darlington.*

*Sabine's Snipe.*—I wish to invite opinions on this bird: one says it is merely a darker variety of the common snipe, while others affirm equally strongly that it is a separate species, and quite as distinct as the solitary snipe. I have lately spoken to a most enthusiastic snipe shooter, and he believes it to be a totally different bird, and not a variety of the common snipe. Are not the pages of the 'Zoologist' the best medium for settling this question? I should be glad if any one would give names of places wherever the bird has been met with, not only in this country, but elsewhere.—*W. Watson.*

[Perhaps the following extract from page 318 of my edition of Montagu's Dictionary may be of some use to my correspondent:—"This bird was described by the late Mr. Vigors, at p. 556 of the fourteenth volume of the 'Transactions of the Linnean Society,' from a specimen killed in Queen's County, Ireland, in August, 1822. A second specimen, as recorded by Mr. Selby, was shot on the banks of the Medway, near Rochester, in October, 1824; a third at Morpeth, in Northumberland, as also recorded by Mr. Selby, but without date; and Mr. Thompson, in his 'Natural History of Ireland,' gives full particulars of a fourth, killed in December, 1827, about a mile from Garvagh, in the County Londonderry. In the 'Zoologist' for 1845 Mr. Knox records, at p. 1025, the occurrence of a fifth specimen, shot early in May of that year, near one of the estuaries of Chichester Harbour: in the volume for 1846 Mr. Sclater, the active Secretary of the Zoological Society, mentions, at p. 1300, a sixth killed on Basing Moor, in Hampshire: in the volume for 1857 Mr. Stevenson notices, at p. 5427, the occurrence of a seventh at Rainham, near Fakenham, in Norfolk, on the 17th of October, 1856: and finally, in the volume for 1862, Mr. Rodd records, at p. 7882, the occurrence of an eighth example at Carnauton, near Penzance, in 1861. After reading, with the care which such valuable remarks deserve, the opinions of Mr. Salvin (Zool. 5593) and Mr. Rodd (Zool. 7938), I incline to the opinion suggested, but not enforced, by those accomplished ornithologists, that Sabine's snipe is nothing more than a variety of the common snipe. It seems to me a remarkably apt illustration of that deviation from normal colouring which so frequently occurs in nature, not only among birds, but in every department of the animal kingdom."—*Edward Newman.*]

*Occurrence of the Common Dotterel at the Lizard.*—The common dotterel seldom makes its appearance in Cornwall: we find them sometimes on our open moors near the sea, and generally in the autumn. I observed two in the birdstuffer's hands, which came from the Lizard district near Helston.—*Edward Hearle Rodd; Penzance, September* 16, 1868.

*Glossy Ibis in Norfolk.*—I have received this day, for preservation, a beautiful immature male specimen of the glossy ibis, in the flesh, from Stalham (but cannot at present say whether shot in that particular locality). The bird was rather fat, and weighed one pound six ounces, being four ounces more than Morris, in his 'British Birds,' allows for the average weight of adult birds, and six ounces above the average of immature birds.—*T. E. Gunn;* 21, *Regent Street, Norwich, September* 14, 1868.

*Divers on Land.*—I have stated (Zool. S. S. 1379) that divers never come to land except in the breeding season: this in its natural sense is true, but, unnaturally, sometimes a poor diver will find himself in a midland county in England or thrown upon a beach. The most probable supposition to account for the former predicament is that storm had compelled the bird to seek inland water for its subsistence, or that it was crossing the island from a stormy sea to seek quieter water under the lee of the land: in either case we must suppose that either fatigue, error or accident caused it to alight, as it certainly would not wittingly alight on land, from which it could never rise. In the case of its being thrown ashore, fatigue, sickness, or its inadvertently diving within the power of a roller, will account: it certainly never goes ashore willingly, except, as I said, the female to lay and incubate. Those pictures we see of divers perched on rocks and the edges of lakes are visions of the sketcher we naturalists do not see in life. I once saw a diver ashore in winter, and only once; that was behind the West Pier, Kingstown; it was Colymbus glacialis: it had been thrown up by the waves caused by a strong easterly gale, while diving among the rocks: a more helpless creature I never met with: I got down and liberated it; it instantly dived, appeared again two hundred yards off, appearing fully alive to the peril it had escaped.—*Harry Blake-Knox.*

*Erratum.*—Zool. S. S. 1380, line 10, leave out the semicolon between "feet" and "at"; and read, "They can spring by this means ten feet at an altitude of two feet, the wings being of great aid."—*Id.*

*Great Northern Diver breeding in Scotland.*—In addition to the notes previously given (Zool. S. S. 1309), I may mention that a friend also heard of the great northern diver breeding in another part of Scotland. The person who described the bird to him quite satisfied him as to the correctness of his statement, and described the cry as differing from any that he had ever heard the blackthroated diver to utter, and agreeing, as far as my friend could trace, with the cry of the birds I saw in Sutherland, and which I imitated in his hearing.—*John A. Harvie Brown; Dunipace House, Falkirk, September* 5, 1868.

*Blackthroated Diver off the Dublin Coast.*—February 11, 1867. Shot an adult. March 5, 1867. Watched, through a glass, an adult in full breeding dress. January 5, 1868. Watched an adult: it was in the spring moult.—*H. Blake-Knox; September* 7, 1868.

*Little Auk in Dublin Bay.*—November 7, 1867. Shot a little auk in the bay: it was a young bird in its second winter, and in very rich plumage.—*Id.*

*Leach's Petrel in Dublin Bay.*—January 10. Shot an adult of this little petrel in the bay; there were others with it.—*Id.*

*Eared Grebe in County Dublin and County Antrim, Ireland.*—December 7, 1867. To-day I was brought an eared grebe that a fisherman's son killed with a stone or a whelk-shell, while swimming off the Kolamore, Dalkey, County Dublin. It appeared a young bird, without any of the head plumes, and was in the plumage of the "dusky grebe" of some authors. A day or so later another of these grebes came under my observation: it was killed at Six Mile Water, Doagh, County Antrim, and was in exactly the same plumage as my bird. I believe this to be the rarest of our Irish grebes.—*Id.*

*Kittiwake: Correction of an Error.*—I find in my notes on the kittiwake (Zool. S. S. 1367) that I mention that "four was the prevailing number of eggs laid": this ought to have been written "three"; in several cases I found more than that number, but they were exceptional. In June of this year, at Barra Head, I found in no case more than three, but the birds had not finished laying, and more nests had one and two eggs in than three. I see in the 'Leisure Hour' for October, in which I give an account of Ailsa, I mention rock dove, rock pipit, curlew, thrush and ring ouzel: these will be included in a future list.—*Theodore C. Walker.*

*Little Gull near Bridlington.*—Mr. Jones has just sent me two little gulls (*Larus minutus*) from Bridlington Quay, shot by Sheffield excursionists. Both have the occiput and nape of the neck streaked with grayish black on a white ground, but one is somewhat larger than the other.—*J. H. Gurney, jun.; September* 8, 1868.

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**The Birds of Suffolk.**—For the last few years I have collected notes and observations on the Birds of Suffolk, intending to publish a catalogue of the same, at a future time, in the 'Zoologist;' meanwhile any interesting matter connected with the same would prove most acceptable from any contributor to the 'Zoologist.' Mr. Stevenson has kindly promised to furnish me with his notes. Please address—T. E. Gunn, *Regent Street, Norwich.*

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